Applicant: Masayuki TSUCHIYA et al.

Docket No. (06:07)

Preliminary Amdt.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims:

Claims 1-3. (Canceled)

4. (New) In an apparatus for thixocasting a cast iron, comprising at least a pair of dies that

can be freely opened and closed to form a die cavity which is to be filled with semi-molten

cast iron under a pressure, injection means operable to inject the semi-molten injected

material into the die cavity through an injection path, and a gate located at the entry of the die

cavity so as to throttle entry from the injection means into the die cavity, the improvement

wherein the gate is constituted from a separate gate member and is disposed at the entry of the

cavity each time an injection casting operation is carried out and is taken out together with the

casting after the injection casting operation is completed.

5. (New) The apparatus for thixocasting a cast iron according to claim 4, wherein the gate

member has a projecting portion formed to a certain extent around the gate hole facing the

injection path.

6. (New) In a method of thixocasting a cast iron, which comprises filling a cavity in dies

with semi-molten cast iron that is injected through a gate that throttles the entry of the cavity

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under a pressure, the improvement wherein the injected material is covered on the

circumference thereof by a steel sheet 0.2 to 0.5 mm thick and having a melting point higher

than that of the injected material.

7. (New) The method of thixocasting a cast iron according to claim 6, wherein the cast iron

material is injected through a gate hole having a projecting portion formed to a certain extent

around the gate hole and facing the injection path.

8. (New) The method of thixocasting a cast iron according to claim 6, wherein the steel

sheet is a stainless steel sheet.

9. (New) The method of thixocasting a cast iron according to claim 7, wherein the steel

sheet is a stainless steel sheet.

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